

## **Chapter Two: Contents**

**(Activities – 15 October 2001 – LA-UR 01-5714 – Portland Study Reports)**

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## Chapter Two—Activities

### 1. ACTIVITIES

Activities for the Portland population were generated in parallel by splitting the population into 20 household lists. Activities for each of the 20 household lists were generated in about 40 minutes simultaneously using 20 compute nodes on the rockhopper cluster. The resulting activity files were combined to produce a single activity file that was approximately 973 megabytes in size.

Activities for itinerant travelers and freight trips were produced from trip tables. A pair of activities (origin and destination) was produced for each trip in the tables.

- 205,957 itinerant traveler trips were generated, resulting in 411,914 activities.
- 41,997 freight trips were generated resulting in 83,994 activities.

A base activity set is generated for the entire synthetic population. Trips are counted by mode from this activity. The trips are compared with calibration numbers, and the biasing scheme described in Volume 2 (*Study Setup: Parameters and Input Data*), Chapter 3 (*Activity Generation*) is executed. In this study, it was determined that the transit (including MAX) plus the drive trips were 25% too low in the original activity set. The biasing scheme was used to increase these trips by 25%.

Table 1 shows the number of trips by mode before (Weights=1) and after (Weights Computed), the biasing scheme, was executed. In both cases, the Magic Move mode represents interhousehold shared rides that were not simulated in this version of TRANSIMS.

**Table 1. The number of trips by mode before and after biasing the selection of households with more trips. The goal of the biasing is to increase the transit (including MAX) plus the drive trips by 25%.**

Mode	Weights=1 Trips	Mode	Weights Computed Trips
Walk	542,077	Walk	479,160
Drive	4,573,938	Drive	6,039,928
Transit	167,673	Transit	156,736
MAX	29,315	MAX	28,504
Bike	68,385	Bike	47,847
Magic Move	292,464	Magic Move	306,119

The activity set generated with the computed weights is AS-1 in Figure 2 of Volume One (*Introduction/Overview*).